

Amendments fo the Claims:

This listing will replace all prior versions, and listings, of the Claims in this application.

Listing of the Claims:

Claims 1-13 (Canceled).

14. (New) A conveyor belt arrestor comprising:

a frame mountable to a fixed structure of a conveyor belt installation, the frame including a reaction member located operatively above a top run of a conveyor belt of the installation;

a wedging structure located operatively beneath the top run of the conveyor belt and mounted for swinging movement in a vertical plane relative to the frame; and

at least one torsion spring arranged to be tensioned in use to apply a rotational bias to the wedging structure in a direction to swing the wedging structure upwardly;

wherein, in the event of the conveyor belt breaking and belt tension being lost, the at least one torsion spring swings the wedging structure upwardly to lift the top run of the conveyor belt toward the reaction member such that the top run of the conveyor belt is trapped between the wedging structure and the reaction member by a wedging action that prevents movement of the top run of the conveyor belt in a direction opposite to its normal direction of forward travel.

15. (New) The conveyor belt arrestor of Claim 14, wherein the wedging structure comprises an arm carried by a shaft rotatable relative to the frame and acted upon by the at least one torsion spring.

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16. (New) The conveyor belt arrestor of Claim 15 comprising torsion springs acting on opposite ends of the shaft.

17. (New) The conveyor belt arrestor of Claim 14, wherein the wedging structure comprises a plurality of wedge-shaped segments.

18. (New) The conveyor belt arrestor of Claim 14, wherein the reaction member is a beam extending transversely over the conveyor belt between side structures of the frame.

19. (New) The conveyor belt arrestor of Claim 14 further comprising a trapping apparatus for trapping a bottom run of the conveyor belt in the event of belt breakage.

20. (New) The conveyor belt arrestor of Claim 19, wherein the trapping apparatus comprises:

- a fixed frame member located operatively beneath the bottom run of the conveyor belt;

- a trapping member located operatively above the bottom run of the conveyor belt and arranged to swing relative to the frame between an inoperative position clear of the bottom run of the conveyor belt and an operative position in which it traps the bottom run of the conveyor belt against the fixed frame member; and

- a detent arranged to hold the trapping member in the inoperative position during normal conveyor belt operation and, in response to upward swinging movement of the wedging structure, to release the trapping member to swing downwardly under gravity to the operative position.

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21. (New) The conveyor belt arrestor of Claim 20, wherein the trapping member is carried by an arm on a rotatable shaft, the effective distance between the shaft and the fixed frame member is adjustable to cater for different thicknesses of conveyor belt.

22. (New) The conveyor belt arrestor of Claim 21, wherein the rotatable shaft to which the arm carrying the trapping member is connected has ends which are rotatable in eccentric openings in members which are themselves rotatable relative to the frame to adjust the effective length of the arm.

23. (New) The conveyor belt arrestor of Claim 21, wherein the detent member comprises a detent arm having opposing ends, one end of which is pivoted to the wedging structure and the other end of which is engageable with the trapping member to hold the trapping member in the inoperative position during normal belt operation and which is arranged to disengage the trapping member when the wedging structure swings upwardly.

24. (New) The conveyor belt arrestor of Claim 14 further comprising an auxilliary apparatus which acts in addition to the at least one torsion spring to swing the wedging structure upwardly in event of belt breakage and loss of belt tension.

25. (New) The conveyor belt arrestor of Claim 24, wherein the auxillary apparatus comprises:

- a roller supported rotatably by the frame and arranged to be rotated by the top run of the conveyor belt;

- a sub-shaft on an axis of the roller which can rotate relative to the roller during normal belt operation but which is locked relative to the roller in the event of reverse movement of the conveyor belt and corresponding reverse rotation of the roller; and

- a cord attached to the sub-shaft and to a point on the frame above the top run of the conveyor belt which is arranged to be wound up on the sub-shaft and thereby to raise

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the roller and with it the top run of the conveyor belt in the event of reverse rotation of the roller.

26. (New) The conveyor belt arrestor of Claim 24, further comprising a unidirectional bearing supporting the sub-shaft relative to the roller.

27. (New) A conveyor belt arrestor comprising:
a frame mountable to a fixed structure of a conveyor belt installation, the frame including a reaction member located operatively above a top run of a conveyor belt of the installation;
a wedging structure located operatively beneath the top run of the conveyor belt and mounted for swinging movement in a vertical plane relative to the frame;
at least one torsion spring arranged to be tensioned in use to apply a rotational bias to the wedging structure in a direction to swing the wedging structure upwardly; and
a trapping apparatus for trapping a bottom run of the conveyor belt;
wherein, in the event of the conveyor belt breaking and belt tension being lost, the at least one torsion spring swings the wedging structure upwardly to lift the top run of the conveyor belt toward the reaction member such that the top run of the conveyor belt is trapped between the wedging structure and the reaction member by a wedging action that prevents movement of the top run of the conveyor belt in a direction opposite to its normal direction of forward travel.

28. (New) The conveyor arrestor of Claim 27, wherein the trapping apparatus comprises:

a fixed frame member located operatively beneath the bottom run of the conveyor belt;
a trapping member located operatively above the bottom run of the conveyor belt and arranged to swing relative to the frame between an inoperative position clear of the

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a detent arranged to hold the trapping member in the inoperative position during normal conveyor belt operation and, in response to upward swinging movement of the wedging structure, to release the trapping member to swing downwardly under gravity to the operative position.

29. (New) The conveyor belt arrestor of Claim 28, wherein the trapping member is carried by an arm on a rotatable shaft, the effective distance between the shaft and the fixed frame member is adjustable to cater for different thicknesses of conveyor belt.

30. (New) The conveyor belt arrestor of Claim 29, wherein the rotatable shaft to which the arm carrying the trapping member is connected has ends which are rotatable in eccentric openings in members which are themselves rotatable relative to the frame to adjust the effective length of the arm.

31. (New) A conveyor belt arrestor comprising:

a frame mountable to a fixed structure of a conveyor belt installation, the frame including a reaction member located operatively above a top run of a conveyor belt of the installation;

a wedging structure located operatively beneath the top run of the conveyor belt and mounted for swinging movement in a vertical plane relative to the frame;

at least one torsion spring arranged to be tensioned in use to apply a rotational bias to the wedging structure in a direction to swing the wedging structure upwardly;

an auxiliary apparatus, acting in addition to the at least one torsion spring, to swing the wedging structure upwardly; and

a trapping apparatus for trapping a bottom run of the conveyor belt including a fixed frame member located operatively beneath the bottom run of the conveyor belt, a trapping member located operatively above the bottom run of the conveyor belt and a detent

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trapping member located operatively above the bottom run of the conveyor belt and a detent arranged to hold the trapping member in an inoperative position during normal belt operation;

wherein, in the event of the conveyor belt breaking and belt tension being lost, the at least one torsion spring and the auxiliary apparatus swings the wedging structure upwardly to lift the top run of the conveyor belt toward the reaction member such that the top run of the conveyor belt is trapped between the wedging structure and the reaction member by a wedging action that prevents movement of the top run of the conveyor belt in a direction opposite to its normal direction of forward travel and the trapping apparatus swings downwardly under gravity in response to the upward swinging movement of the wedging structure to trap the bottom run of the conveyor belt between the trapping member and the fixed frame member.

32. (New) The conveyor belt arrestor of Claim 31, wherein the auxiliary apparatus comprises:

a roller supported rotatably by the frame and arranged to be rotated by the top run of the conveyor belt;

a sub-shaft on an axis of the roller which can rotate relative to the roller during normal conveyor belt operation but which is locked relative to the roller in the event of reverse movement of the conveyor belt and corresponding reverse rotation of the roller; and

a cord attached to the sub-shaft and to a point on the frame above the top run of the belt which is arranged to be wound up on the sub-shaft and thereby to raise the roller and with it the top run of the conveyor belt in the event of reverse rotation of the roller.

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33. (New) The conveyor belt arrestor of Claim 31, wherein the detent comprises a detent arm having opposing ends, one end of which is pivoted to the wedging structure and the other end of which is engageable with the trapping member to hold the trapping member in an inoperative position during normal belt operation and which is arranged to disengage the trapping member when the wedging structure swings upwardly.